

May 21, 2004

To: Commissioner for Patents

P.O.Box 1450

Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572

28 Davis Avenue

Poughkeepsie, N.Y. 12603

Subject:

10/799,103 03/12/04 | Serial No.

Thomas Aisenbrey

CONDUCTOR CENTER-CORE EXTRUSION, COMPRESSION, AND INJECTION MOLDINGS FOR LOW COST ANTENNAS USING CONDUCTIVE PLASTICS OR CONDUCTIVE COMPOSITES

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 24, 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

INT-03-003

UK Patent Application GB 2 377 449 A to Michael Patrick Sayers, "Electrically Conductive Polymer Composition," discusses electrically conductive compositions, and to their use to prevent electrostatic discharges and to earth electrical devices.

- U.S. Patent 5,771,027 to Marks et al., "Composite

 Antenna," describes a composite antenna having a grid comprised
 of electrical conductors woven into the warp of a resin
 reinforced cloth forming one layer of a multi-layer laminate
 structure of an antenna.
- U.S. Patent 6,249,261 to Solberg, Jr. et al., "Polymer, Composite, Direction-Finding Antenna," describes a direction-finding material constructed from polymer composite materials which are electrically conductive.
- U.S. Patent 4,134,120 to DeLoach et al., "Whip Antenna Formed of Electrically Conductive Graphite Strands Embedded in a Resin Material," describes antennas formed from fiber reinforced resin material.
- U.S. Patent 6,617,976 to Walden et al., "Utility Meter Pit LID Mounted Antenna Antenna Assembly and Method," teaches, without providing details, that an antenna could be formed of conductive plastics.

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- U.S. Patent 6,531,983 to Hirose et al., "Method for Antenna Assembly and an Antenna Assembly with a Conductive Film Formed on Convex Portions," describes a dielectric antenna wherein a circuit pattern is formed of a conductive film or resin.
- U.S. Patent 6,320,753 to Launay, "Integrated Circuit Board Combining External Contact Zones and an Antenna, and Process for Manufacturing Such a Board," describes forming an antenna using silk-screen printing of a conductive ink or a conductive resin.
- U.S. Patent 6,486,853 to Yoshinomoto et al., "Chip Antenna, Radio Communications Terminal and Radio Communications System Using the Same and Method for Production of the Same," describes an antenna having a conductor wound on an insulating core body. The insulating core body can be formed using extrusion. There is no wire within the core body.
- U.S. Patent 6,317,102 to Stambeck, "Method and Tool for Manufacturing an Antenna Unit, and an Antenna Unit," describes an antenna unit having an insulating jacket formed over a metallic core, such as a wire.

INT-03-003

- U.S. Patent 5,635,943 to Grunwell, "Transceiver Having Retractable Antenna Assembly," describes an antenna containing an antenna element having a conducting core surrounded by an insulating sheath.
- U.S. Patent Application INT-03-001, Serial No. 10/780,214, filed 02/17/04, assigned to the same assignee, "Low Cost Antennas and Electromagnetic (EMF) Absorption in Electronic Circuit Packages of Transceivers Using Conductive Loaded Resin-Based Materials," describes low cost antennas and electromagnetic absorption structures using conductive loaded resinbased materials.

Sincerely,

Stephen B. Ackerman,

Reg. No. 37761

Em PTO-1449 **ORMATION DISCLOSURE CITATION** Aisenbren MAY 2 6 2004 IN AN APPLICATION (Use several sheets if necessary) U. S. PATENT DOCUMENTS TEARTINER ALMO DATE

APPROPRIATE DOCUMENT HUMBER NAME DATE CLASS NOCULA WIM 343 912 343 801 343 343 700MS 361 760 900 343 Grunwe 5635943 702 FOREIGN PATENT DOCUMENTS Translation DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS UK Patent GB2 15/03 CO8K3/08 7/00 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER DATE CONSIDERED EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through

citation if not in conformance and not considered. Include copy of this form with next communication to the applicant

Doctor Humber (Optional)